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1923

Economic Conditions
Governmental Finance
United States Securities

New York, June, 1923

General Business Conditions

HE bullish sentiment that was more or less rampant in the business field early in April has been dampened considerably of late, and there is not as much talk about the danger of runaway markets. The conservative element of the country viewed the rapid rise of industrial costs with distrust and was indisposed to stock up heavily at the higher level of prices. The cold weather also has been a factor, affecting retail trade in the textile and clothing lines. Department store sales were disappointing in April, but there is no reason to believe that it was for any other reason than the unfavorable weather. The season has been a good deal like that of 1920, when the cancellation that inaugurated the slump of that year began. A few cancellations have occurred. and symptoms of uneasiness have been manifested in some quarters over the slackening of orders and price reactions, but the general situation is very unlike what it was in 1920. The state of activity has not lasted long enough to load the country up with goods; buying has been from hand to mouth so long that dealers have little to go on. This is true not only of finished goods but of raw materials. The price advances that have taken place since the bottom of the depression was touched have in large part represented a natural recovery, and although some signs of excessive stimulation were visible in the early spring buying, there has been no such protracted movement as that which preceded the slump of 1920. Moreover, in general, the situation is not such as to produce or render possible a serious reaction. Credits are so little expanded that no pressure has been exerted for the curtailment of business on that account. The price advances which have occasioned some concern have scarcely reached consumers, and no actual loss of buying power has taken place.

The wage-advances in the steel and textile industries, the signs of a competitive situation over labor in the building trades, and numerous indications of higher prices, evidently have impressed the country unfavorably, Conservative opinion does not have con-

fidence in a prolonged period of prosperity on a higher price basis. A slow spring trade has helped to make merchants cautious, and with prices receding, buyers have withheld orders, as they always do.

The Situation Stronger

The feeling in conservative circles is that the situation is more satisfactory because of this check. The pace in March was too fast to be maintained. Confidence had recovered to such an extent that merchants were in a mood to order freely to replenish stocks, and a degree of congestion and labor shortage developed which was a menace to stable business. It is very desirable to have a full state of employment, and production to the capacity of the industries, but wage advances that cannot be maintained and that only unsettle industry are harmful instead of beneficial.

The energetic revival of business in the spring showed that the country had been restraining itself. It had been in a state of timidity, uncertain about the price situation and as to the extent of the influence of European conditions upon conditions in this country. The outburst of activity demonstrated that there is a very great amount of construction work under contemplation, which will go ahead upon about the level of last year's costs. Some of it will go ahead even at an advance, but the advances have disturbed confidence, and the postponement of many projects is announced. Postponements, however, are unavoidable when there is not labor enough for all, and their chief significance is in showing that a great amount of work is waiting to be Wage advances under the circumstances simply illustrate the workings of the law of supply and demand, the contractors who are willing to pay the most getting the labor. It is not the demands of unions so much as the bidding of competing contrac-tors that is making the high rates, and the situation shows the fallacy of the theory that the law of supply and demand has nothing to do with wages. The fact is that it is the final and most potent factor in fixing all real

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wages, as it is of all prices—for a wage is a price. Wages will be naturally adjusted at the point where the demand for and supply of labor will be in equilibrium. There is no sound objection to that, provided they are as readily adjusted downward when necessary to keep up full activity in building operations.

Activity of Industry

Although buying has been comparatively light in the past month, the tonnage moved by the railroads has been in excess of the movement in this season of any previous year. There has been but little slackening of the industries, although some curtailment has been reported in cotton goods. The April consumption of cotton, however, was at a very high per diem rate. Some reduction in cotton operations is to be expected, in view of the fact that the material is in short supply and prices for the new crop deliveries are several cents lower than for old cotton. Within the next two or three months that difference will be eliminated.

Iron and steel probably is still the best barometer of the general business situation, because of its use for construction work of nearly all kinds, and production in this industry is still running at the highest rate ever known. Railroad equipment is taking a good share of it, and the steel people are confident of plenty of work for all the labor they have through the rest of this year. Automobile production may be also taken as a fairly good barometer of prosperity. It has increased with every month of 1923, April running well ahead of March. From April on, some decline is anticipated, as the spring is the season of heaviest sales.

The Crop Outlook

The season has been backward in all parts of the country, but the grain crops have not been seriously affected by this fact. Spring wheat has been doing well, cool and moist weather being favorable to its early stages. The government report for May on winter wheat showed an abandonment of 14.3 per cent of the acreage, which confirms previous reports of bad conditions in the arid territory from Western Nebraska to Texas. Notwithstanding this reduction in area, the government forecast, assuming an average yield, gives a crop only 8,000,000 bushels lower than last year. Corn planting has been delayed, but not seriously. The most serious effects of the late spring have been in the case of cotton, for while the delay in itself is not unusual, the South is seriously handicapped by labor shortage, due to the migration of negro labor to northern industrial districts. It has been generally assumed that the outlook for high prices for cotton would cause a large acreage to be

planted, but all accounts now go to show that these expectations will not be realized. Few estimates run as high as 13,000,000 bales, which is the estimated consumption of American cotton in this crop year, and when it is understood that the total carry-over is not likely to exceed ordinary mill stocks, it will be seen that the world is facing the danger of serious shortage. Jay & Co., under date of May 23, estimate the increase of acreage over last year at 7½ per cent, and the indicated yield, 11,650,000 bales, lintners excluded. Prices have recovered several cents per pound from the low point.

Live Stock

The ranchmen of the West report that Winter conditions have been favorable. Temperatures have not been severe, and the snowfall has been ample to afford Spring moisture on the pastures and plenty of water this Summer for irrigation. Hay and grain have been plentiful and cattle and sheep came into the Spring in good condition. The sheep growers are feeling especially good, with wool bringing 50 cents per pound and a fine lamb crop in prospect. A correspondent writes from Utah:

Operators in all districts are confident that the lamb crop will be heavier than usual, some predictions being as high as 100 per cent.

The strategic position of wool was never better in the history of the West. The outlook for years to come is very hopeful, granted a reasonable tariff protection based on the difference in the cost of production at home and abroad. The chances of disturbance in this respect are growing less.

A number of wool clips were contracted early at 40c and 41c, but most of the sheepmen are holding for 50c or better. During the last week approximately 100,000 fleeces of the Southern Utah wools have been sold at 50c, netting over \$4.00 per head.

Lambs are being contracted for fall delivery at 10c and 11c, and with prospects of a heavier lamb crop than usual, sheepmen are confident that this season's operations will see a big reduction in outstanding indebtedness, and that 1923 will prove a stabilizing factor in the U. S. sheep industry.

The outlook for cattle is not so good, prices being too low for profitable operations. The same correspondent writes:

A continuance of the present low prices to the producer of beef can only result in growers abandoning the industry, throwing on the market large numbers of breeding stock with the inevitable consequence of a shortage in supply for years to come and greatly increased costs to the consumer.

The Money Market

The money market is about as it was a month ago, with 5¼ to 5½% the range for time loans. The commercial paper offerings are light, indicating that notwithstanding the activity in production and trade, now sustained for a good many months, there is no pressure for credit. Probably never before was so large a volume of business handled with so small a percentage of borrowed capi-

the discountry of the country of

tal. The banks are still carrying heavy holdings of bonds to keep their funds employed, and the strength in the bond market of late is a sign that they are not unloading.

There has been but little change in the condition of either member banks or reserve banks in the last two months, and with the check that has been given to the upward price movement it appears that little change is to be anticipated before fall. The trend of money was away from New York in May.

Our Vanishing Export Balance

Throughout last year our balance of exports over imports was a diminishing factor, and this tendency has continued until in the last two months for which figures are available, March and April, imports have exceeded exports. The excess in March was about \$57,000,000, in April about \$41,000,000, and for the first four months of 1923 there was a net balance of imports over exports of about \$89,000,000.

Probably the most important influence in the reversal of the trade balance has been the revival of our domestic business, which naturally has included an increased demand for foreign as well as domestic commodities. The increased activity in our industries has caused larger importations of raw materials of foreign origin, and importations of all classes have increased. On the other hand, there has not been a corresponding revival abroad to increase the demand for our products.

Our exports and imports in March in three years have been as follows:

Exports\$341,000,000 \$330,000,000 \$386,000,000 Imports398,000,000 256,000,000

The price level is higher in 1923, which would be one factor in the showing, and the rising price level in the United States no doubt has been a factor in changing the situation. In the last six months, however gold prices have been rising abroad, and in England are now rather higher than in this country, in relation to the pre-war level.

European exchange rates have shown no important changes of late. Sterling is higher than a year ago, but at about \$4.62½ is below quotations reached last fall, when it passed \$4.70. Purchases of dollar exchange by the British government for its payments at Washington are a probable factor. These purchases will run above \$161,000,000 per year on the main debt, besides which it is making payments for silver bought under the Pittman act. Exchange rates do not indicate that gold exports are imminent, but the present trend of trade if maintained will cause them eventually.

As has been often pointed out, an adverse trade balance is helpful in collecting our foreign claims; in fact, essential thereto.

World Competition

The similarity of business conditions over the world is illustrated by the following extract taken from a letter from Denmark written by the agricultural correspondent of the London Times. It reads almost as though it might have been written from the United States:

Denmark has suffered with other countries in the financial stress of the past few years. Last year tried many farmers severely and ready money is almost as scarce as here. Production remained at about the normal level, but low prices reduced the revenue, while the cost of production was slow to fall from the wartime standard in any respect, and in some directions it has increased. Wages and their equivalent to the small farmer and his family are about 2½ times the pre-war figure. The hours worked have been reduced, though they are still longer than here. Implements are dearer, owing to the operation of the eight-hour day in factories, And, above all, State and local burdens have increased to four or five times what they were in 1913. All these changes have told seriously against the farming industry, and if the losses have not been so severe as in the parts of England where the main sources of revenue are the produce of arable land, the financial year which ended at Michaelmas, 1922, was extremely discouraging. I was informed that such members of the Agricultural Union as kept audited books could show only 1 per cent, return on the capital invested in their holdings.

the capital invested in their holdings.

There is a disposition to take a brighter view of the current year, as the winter prices of the chief commodities have ruled higher and the markets show a greater activity. There has been a relapse in the spring, but unless something unforeseen occurs the farmers of Denmark hope and believe that by means of their wonderful organizations, intelligently conceived and efficiently conducted, they will contrive to pull through the trials that they are sharing with the agricultural communities in all countries.

And if one is disposed to think that agriculture alone has suffered from unremunerative prices, he may turn to the recent report of the Chamber of Shipping of Great Britain, and read what its General Manager says of the trials of the great shipping industry of that country. He says in part:

Freights have, in some cases, fallen below the figures for 1913, in spite of the continued high operating costs, due to the exceedingly heavy dock charges and charges for stores and fuel, which are still being made. * * A slight reduction in the wages of officers and men has recently been negotiated in a friendly atmosphere, and thus the country has been spared the disaster which a seamen's strike would have represented. But in spite of this economy in working costs, the industry is still struggling in a sea of troubles. British shipping is open to world competition, and not always fair competition. While shipowners, unlike the leaders in some industries, have sought no form of subsidy or protection from the State, every effort must be made to avert threats of discrimination and remove it where it exists if they are to continue to render efficient service to an island community.

Government Finance

Secretary Mellon has practically completed the huge task which confronted him when he entered upon the management of the Treasury in March, 1921, of meeting within two years maturing obligations aggregating about \$7,-500,000,000, and in doing so has established his name securely among those of his most distinguished predecessors. It has been accomplished by a succession of refunding operations in which the Secretary has skillfully fed out to the market the kind of paper that it would take at the lowest interest rates, which means that not only have the interests of the Treasury been conserved but that this has been done with the least possible disturbance to the money market. The new issues have been well adapted to the supply of funds available, and the recurring maturities of Treasury Certificates have been arranged to coincide with heavy Treasury receipts in such manner as to permit of important reductions of the debt in the course of the refunding op-

On April 30, 1921, the gross public debt as shown by the daily Treasury statements was about \$24,000,000,000, and by June 30, 1923, it is estimated that these figures will have been reduced to about \$22,400,000,000, or a reduction in the interest-bearing debt of about \$1,600,-000,000. Of the \$7,500,000,000 which had to be taken care of before May 20, 1923, \$750,-000,000 was refunded in the fall of 1922 into bonds running 25 or 30 years. The remainder, exclusive of the debt-reduction, has been replaced by various issues with maturities spread at convenient intervals over the time between now and the maturity of the Third Liberty Loan in 1928. By this policy the Secretary has avoided the creation of a greater amount of long-term indebtedness upon a market which there is reason to believe will eventually go lower for that class of investments, and has provided that the policy of reducing the indebtedness from current revenues may be continued.

Of the \$7,500,000,000 task that fell to Secretary Mellon the amount remaining to be dealt with in May, 1923, was \$830,000,000, in the form of Victory notes drawing 43/4 per cent interest. These were due on May 20, although about \$65,000,000 had been called for payment last December, and had not been presented. To take care of these, the Secretary offered \$400,000,000 of Treasury notes falling due on May 15, 1927, for cash subscription and invited further subscriptions to be paid for in the maturing Victories. The result of this offer was a great over-subscription, the total being \$1,234,570,400. Allotments were made upon cash subscriptions to \$382,052,900, and upon exchange subscriptions to \$286,669,-900, or a total of \$668,722,800. The remainder necessary to pay off the outstanding Victories will come out of Treasury cash. Preference was given to small subscriptions in the allot-

Outlook for the Treasury

Secretary Mellon's heavy task is over; there will remain during his term of office only the refunding of the short-dated Treasury certificates as they fall due, after such reductions as may be possible from surplus revenues. As the maturity of the Third Liberty Loan approaches in 1928 it will be necessary to arrange for a refunding of the remaining short debt that will throw it over the period in which the big operation will occupy attention, but by that time, if the country continues to have surplus revenues, the total of the short debt probably will be down to quite manageable proportions.

In his circular letter dated May 7, 1923, Secretary Mellon summed up the state of the Treasury as regards revenues and sinking fund operations in the following paragraph:

This Government, as you probably know, has been squarely following the policy of balancing its budget from year to year, ordinary receipts against ordinary expenditures, and beginning with the fiscal year 1921 it has included as ordinary expenditures for budget purposes the sinking fund and all other debt retirements properly chargeable against ordinary receipts, aggregating about \$422,000.000 for the fiscal year 1921 and about the same amount for the fiscal year 1922. This means that any surplus which may be realized is after providing for sinking fund charges and similar public debt retirements. For the fiscal year 1923 the returns are not yet complete, but up to April 30, 1923, covering the first ten months of the year, there was a surplus on the basis of daily Treasury statements of over \$137,000,000 above all expenditures chargeable against ordinary receipts, and the Treasury's debt estimates indicate that by the end of the year there will be a surplus of over \$125,000,000, after charging out expenditures for the sinking fund and other public debt requirements of the same nature to the amount of about \$405,000,000. This means that notwithstanding the unfavorable prospects at the beginning of the year with a substantial surplus. This fortunate result is due, in large part, to increased revenues from Internal Revenue and Customs, and, to a lesser extent, to decreases in the general expenditures of the Government. It is a showing which gives much reason for encouragement, and it means better prospects for the future if all concerned will continue to exercise the utmost economy in Government expenditure and avoid new projects that would drain the public Treasury.

The country has been fortunate in having the services of an able and experienced financier in managing these important affairs. The response to his offerings has given evidence in each case of the good judgment with which they have been planned.

The situation is now quite clear, except that the soldiers' bonus bill still hangs over it. The sum involved in that is so large that unless it is accompanied by new revenue legislation which will distribute the burden broadly, it is likely to disturb both government and private financing.

The Produce Exchanges

The Congress has finally found a way to establish governmental supervision over the grain exchanges with the sanction of the Supreme Court. Such supervision must be exercised through the authority of the Federal Government over inter-state commerce and transactions between parties who stand face to face on the floor of a grain exchange, and which result in the transfer of ownership upon the spot, do not on first view seem to be interstate commerce. The original Capper-Tincher act for the control of the exchanges was held unconstitutional only a few months ago, but a new bill was immediately drafted by the same authors, in terms which are now held by the court to furnish a basis for an affirmative decision. The Chief Justice in rendering the decision said that under the showing made by the evidence and argument presented in the case, the court would not question the accuracy of the decision of Congress that transactions on grain exchanges were susceptible of being made a restraint on interstate com-

The provisions of the law are substantially as follows:

- Forbids dissemination of false or knowingly inaccurate reports on crops or market information.
 - 2. Forbids manipulation of prices or cornering.
- 3. Compels the admission of representatives of co-operative organizations on the same basis as other applicants, except that as members they may distribute their earnings to their patrons and shall not be excluded because of such distribution of profits on a basis of patronage dividends.

The first two proposals have nothing novel in them, as the exchanges always have condemned such practices and endeavored to suppress them. Moreover, they are covered by the common law and existing statutes. Nearly all market information, including that supplied by the government, is more or less inexact, and it is practically impossible to prove that an accused is circulating reports known to be false.

Furthermore, it is not easy to distinguish between the "manipulation" of markets and legitimate buying and selling. The law, of course, is not intended to prevent the purchase of grain with a view to selling it at a profit, for no dealer ever buys grain without that expectation. Indeed, the law does not forbid any of the existing practices recognized as legitimate, and the objection to it is simply that it establishes regulation of ordinary business transactions by public officials, without accurate definition of the offenses to be suppressed.

The admission of co-operative associations to membership in the exchanges has been opposed on the ground that it amounts to rebating commissions, which is against the rules of all exchanges. Commissions are regulated by the exchanges with a view to maintaining fair, open and uniform treatment of

the public. The commissions, however, are not a very large factor in the total cost of marketing grain.

Service of the Exchanges

The main question raised by such laws relates to the freedom of the markets. The service of an exchange is simply in providing buyers and sellers the opportunity to meet under conditions which afford the greatest convenience in the dispatch of business and the best assurance that they are dealing with responsible parties. From the standpoint of the producer and the public the service of the exchange is in the publicity given to trading, the protection given to those wishing to buy or sell, and in the broadening of the market which results from the organized facilities. By means of the exchanges and modern warehouse facilities it is possible for parties with-out any equipment for actually handling the product, to buy and sell if they may wish to do so. The effect of all this is to enlarge the number of people interested in the markets, and there is every reason to believe this makes it more difficult to manipulate the markets than would be the case if buying and selling was confined to the regular trade. The farmer's crop comes on the market rapidly after harvest; he is interested in having plenty of competition for it, in other words, plenty of speculation, for buying grain at harvest time to sell six or eight months later is inevitably a speculative transaction. If the farmer holds it himself it is speculation.

The new law is to be administered by the Secretary of Agriculture, who is already busy supervising the meat packers and with nu-merous other duties. This means that the supervision will be actually in the hands of subordinates, who may or may not be well-qualified for their responsibilities. Another element of uncertainty is introduced into the marketing process, whereas the efforts of business men are aimed at eliminating uncertainties. Experienced people are convinced that a broad, free, public market affords better assurance of prices fairly responsive to supply and demand conditions than any arbitrary regulation can give. They distrust all arbitrary regulation, because it makes the market subject to the discretion of individuals. They say that the market itself, if left free, administers the surest and most effectual punishment for manipulators. Mere manipulators and unintelligent speculators lose a great deal more money than they make.

Conflicting Purposes

The Capper-Tincher act was supported by the farm bloc upon the theory that it would restrict speculation and that speculation tends to lower prices. On the other hand, the Attorney-General of the United States has recently brought an action against the Coffee and Sugar Exchange of New York to restrain future trading in sugar, on the ground that the operations were speculative and tended to put up prices. In both cases the complainants were attacking the facilities for trading because of popular displeasure over recent movements of prices. The result of restricting the exchanges would be to throw the trading into private channels, and probably reduce the number of buyers and sellers, a result favorable rather than unfavorable to manipulation.

The petition against the Coffee and Sugar Exchange has been denied, but the action in bringing it has been disturbing to all the commodity markets in which public exchanges are maintained. It is regarded as another symptom of the popular disposition to introduce governmental authority in ordinary business affairs, without knowledge of the economic conditions involved or the harmful effects.

The Price of Wheat

There has been so much reiteration of the charge that the price of wheat is manipulated by the grain exchanges to the disadvantag of the farmer that the Minneapolis Chamber of Commerce has published a circular entitled "Orderly Marketing" in which are given charts showing the course of prices of wheat, onions, potatoes and apples over terms of years. The last three commodities are not traded in upon exchanges, and the charts show far greater fluctuations in these than in wheat, a fact which is also a matter of common knowledge.

The wheat chart occupies so little space that we are able to reproduce it, and commend it to the attention of our readers. It is a common charge that the price of wheat is regularly depressed at harvest time and immediately following, until the crop has been bought by speculators, and that later the price is advanced unduly, affording the speculators large and easy profits.

The chart below shows the average price per bushel of No. 1 Northern wheat on the Minneapolis public market for each month over 29 consecutive crop years, from the crop year 1885-86 to 1913-14 inclusive. The figures for September represent the average of the 29 Septembers of the period, etc. The chart shows that on the average the price was highest at the end of May and beginning of June, which although not the end of the crop year in Minneapolis territory, is only shortly before the time at which new wheat begins to be available in the more southerly markets of the country. The figures show that the highest average monthly price is a fraction of 6 cents per bushel above the lowest monthly average.

This was the outside margin to cover warehousing, interest, depreciation, insurance, commissions, profit and other incidental carrying expenses. The showing is conclusive upon the point at issue.

Under the chart is given the explanatory comment of the Minneapolis Chamber of Com-



Price of Wheat, Minneapolis, Over 29 Years

Two-thirds of the wheat crop is marketed by the producer during the first third of the crop year—in other words the wheat is marketed in September, October, November and December of each crop year at a rate four times as fast as the last eight months of the crop year. This Chart shows that, notwithstanding the heavy marketing in September, October, November and December of each year, taking 29 years together the price level for 1 Northern Wheat was maintained within about 6 cents of the highest was maintained within about 6 cents of the highest price reached on the average during the month of May in each crop year. The maximum average increase in price for the 29 consecutive crop years mentioned was slightly over 6 cents per bushel, as compared with the heavy crop moving period. Six cents per bushel would scarcely cover the cost of carrying this wheat even on the farm, interest on the investment, insurance on the grain and granary and depreciation in quality being taken into account. This high level of value of wheat during the heavy

and depreciation in quality being taken into account. This high level of value of wheat during the heavy crop moving period as compared with the remainder of the crop year is entirely due to the system of future trading in the leading grain exchanges, and this system produces a price level during the heavy moving periods which could not possibly be secured by any system of "orderly marketing," as compared with the last two-thirds of the crop year.

Ford's Industrial Policies

Henry Ford has demonstrated that he is one of the great industrial managers of the world. He has built up a wonderful business, by highly efficient methods, with the result that he has achieved the lowest costs in the industry while paying the highest wage rates. The public which buys his product is served at low prices, the workmen in his employ are exceptionally well paid, and yet the Ford Company has realized profits far beyond any other ever approached in the history of industry in this or any other country.

When Mr. Ford describes the methods by which these results have been accomplished, his statement should command the attention of employers, wage-earners and the public alike. He is writing of matters about which he is perfectly familiar, and upon which he is an unquestioned authority. Furthermore, what he says is of great importance because it is applicable generally, and points the way to the elimination of much strife and ill will from industry, on the basis of greater productivity and better conditions for all. Moreover, it throws a flood of light upon the much dis-

cussed subjects of profits, demonstrating that large aggregate profits may be realized from low prices.

Mr. Ford, in collaboration with Mr. Samuel Crowther, has recently prepared and published the story of the development of the great Ford industry, and it makes very interesting reading. While the language may be largely that of the collaborator, the industrial theories and the account of Ford policies are undoubtedly Mr. Ford's.

He tells of the experiment of fixing wages well above the market rate, in the following

In 1914, when the first plan went into effect, we had 14,000 employees and it had been necessary to hire at the rate of about 53,000 a year in order to keep a constant force of 14,000. In 1915 we had to hire only 6,508 men and the majority of these new men were taken on because of the growth of the business. With the old turnover of labor and our present force we should have to hire at the rate of nearly 200,000 we should have to hire at the rate of nearly 200,000 men a year—which would be pretty nearly an impossible proposition. Even with the minimum of instruction that is required to master almost any job in our place, we cannot take on a new staff each morning, or each week, or each month; for, although a man may qualify for acceptable work at an acceptable rate of speed within two or three days, he will be able to do more after a year's experience than he did at the do more after a year's experience than he did at the beginning. The matter of labor turnover has not since bothered us; it is rather hard to give exact figures because when we are not running to capacity, we rotate some of the men in order to distribute the the work among the greatest number. This makes it the work among the greatest number. This makes it hard to distinguish between the voluntary and involuntary exits. Today we keep no figures; we now think so little of our turnover that we do not bother to keep records. As far as we know the turnover is somewhere between 3 per cent and 6 per cent a

He discusses the question of a "living wage" as follows:

When can a wage be considered adequate? How much of a living is reasonably to be expected from work? Have you ever considered what a wage does or ought to do? To say that it should pay the cost of living is to say almost nothing. The cost of living depends largely upon the efficiency of production and transportation; and the efficiency of these is the sum of the efficiencies of the management and the workers. Good work, well managed, ought to result in high wages and low living costs. If we attempt to regulate wages on living costs, we get nowhere. The cost of living is a result and we cannot expect to keep a result constant if we keep altering the factors which produce the result. When we try to regulate wages according to the cost of living, we are imitating a dog chasing his tail. And, anyhow, who is coming a dog chasing his tail. And, anyhow, who is com-petent to say just what kind of living we shall base the costs on? Let us broaden our view and see what a wage is to the workmen-and what it ought to be.

He discusses the objections that are sometimes raised to machinery, highly organized industry and the sub-division of labor, as follows. Evidently he does not believe either in the equality of all men from a productive standpoint or that the more capable ones make life harder for the less capable ones. On the contrary, he believes that organized industry, which places every one where he can be most useful, with the resulting large production, is beneficial to all:

It is self-evident that a majority of the people in the world are not mentally—even if they are physically—capable of making a good living. That is, they are not capable of furnishing with their own hands a sufficient quantity of the goods which this world needs to be able to exchange their unaided product for the goods which they need. I have heard it said, in fact I believe it is quite a current thought, that we have taken skill out of work. We have not. We have put in skill. We have put a higher skill into planning, management, and tool-building, and the results of that skill are enjoyed by the man who into planning, management, and tool-building, and the results of that skill are enjoyed by the man who is not skilled.

That is a very effective answer to the Karl Marx doctrine that manual labor of itself creates all wealth. Mr. Ford goes on at this point, as follows:

We have to recognize the unevenness in human mental equipments. If every job in our place re-quired skill the place would never have existed. Suf-ficiently skilled men to the number needed could not have been trained in a hundred years. A million men working by hand could not even approximate our present daily output. No one could manage a million men. But more important than that, the product of the unaided hand of those million men could not be sold at a price in consonance with buying power. And even if it were possible to imagine such an aggrega-tion and imagine its management and correlation, just think of the area that it would have to occupy! Just think of the area that it would have to occupy:

How many men could possibly be paid more than ten
or twenty cents a day—for of course it is not the
employer who pays wages. He only handles the
money. It is the product that pays the wages and it
is the management that arranges the production so
that the product may pay the wages.

The more economics. They began gradually—just as we began gradually to make our own parts. "Model T" was the first motor that we made ourselves. The great economies began in assembling and then extended to other sections so that, while today we have skilled mechanics in plenty, they do not produce automobiles—they make it easy for others to produce them. Our skilled men are the tool makers, the experimental workmen, the machinists, and the pattern makers. They are as good as any men in the world—so good, indeed, that they should not be wasted in doing that which the machines they contrive can do better. The rank and file of men who come to us are unskilled; they learn their jobs within a few hours or a few days. If they do not learn within that time they will never be of do not learn within that time they will never be of any use to us. These men are, many of them, for-eigners, and all that is required before they are taken eigners, and all that is required before they are taken on is that they should be potentially able to do enough work to pay the overhead charges on the floor space they occupy. They do not have to be able-bodied men. We have jobs that require great physical strength—although they are rapidly lessening; we have other jobs that require no strength whatsoever—jobs which, as far as strength is concerned, might be attended to by a child of three.

The value of modern, highly-equipped industry is summed up as follows:

We were, almost overnight it seems, in great production. How did all this come about?

Simply through the application of an inevitable principle. By the application of intelligently directed principle. By the application of intelligently directed power and machinery. In a little dark shop on a side street an old man had labored for years making axe handles. Out of seasoned hickory he fashioned them, with the help of a draw shave, a chisel, and a supply of sandpaper. Carefully was each handle weighed and balanced. No two of them were alike. The curve must exactly fit the hand and must conform to the grain of the wood. From dawn until dark the old man labored. His average product was eight handles a week, for which he received a dollar and a half each. And often some of these were unsaleable—because the balance was not true.

Today you can buy a better axe handle, made by machinery, for a few cents. And you need not worry

about the balance. They are all alike—and every one is perfect. Modern methods applied in a big way have not only brought the cost of axe handles down to a fraction of their former cost-but they have immensely improved the product.

Answering the question, what would become of all the workers if the labor-saving methods which he advocates were applied everywhere,

The question is entirely reasonable, but it is a little curious that it should be asked. For when were men ever really put out of work by the bettering of industrial processes? The stage-coach drivers lost their jobs with the coming of the railways. Should we jobs with the coming of the railways. Should we have prohibited the railways and kept the stage-coach drivers? Were there more men working with the stage-coaches than are working on the railways? Should we have prevented the taxicab because its coming took the bread out of the mouths of the horse-cab drivers? How does the number of taxicabs compare with the number of horse-cabs when the latter were in their prime? The coming of shoe machinery closed most of the shops of those who made shoes by hand. When shoes were made by hand, only the very well-to-do could own more than a single pair of shoes and most working people went. a single pair of shoes, and most working people went barefooted in summer. Now, hardly anyone has only one pair of shoes, and shoe-making is a great industry. No, every time you can so arrange that one man will do the work of two, you so add to the wealth of the country that there will be a new and better job for the man who is displaced. If whole industries changed overnight then disposing of the surplus men would be a problem, but these changes do not occur as rapidly as that. They come gradually. In our as rapidly as that. They come gradually. In our own experience a new place always opens for a man as soon as better processes have taken his old job. And what happens in my shops happens everywhere in industry. There are many times more men to-day employed in the steel industries than there were the days when every constitution was by hand. It in the days when every operation was by hand. It has to be so. It always is so and always will be so. And if any man cannot see it, it is because he will not look beyond his own nose.

The case for labor-saving machinery, or machinery which makes labor more productive, never has been stated more effectively than that.

Describing the process by which the present methods of production were developed in the Ford works, he says:

Ford car contains about five thousand parts that is, counting screws, nuts, and all. Some of the parts are fairly bulky and others are almost the size parts are fairly bulky and others are almost the size of watch parts. In our first assembling we simply started to put a car together at a spot on the floor and workmen brought to it the parts as they were needed in exactly the same way that one builds a house. When we started to make parts it was natural to create a single department of the factory to make that part, but usually one workman performs all of the operations necessary on a small part. The rand that part, but usually one workman performs all of the operations necessary on a small part. The rapid press of production made it necessary to devise plans of production that would avoid having the workers falling over one another. The undirected worker spends more of his time walking about for materials and tools than he does in working; he gets small pay because pedestrianism is not a highly paid line.

The first step forward in assembly came when we began taking the work to the men instead of the men to the work. We now have two general principles in all operations—that a man shall never have to take more than one step, if possibly it can be avoided,

and that no man need ever stoop over.

He says of the practice of assembling the car upon a moving trolley line:

I believe that this was the first moving line ever installed. The idea came in a general way from the overhead trolley that the Chicago packers use in dressing beef. We had previously assembled the fly-

wheel magneto in the usual method. With one work-men doing a complete job he could turn out from thirty-five to forty pieces in a nine-hour day, or about twenty minutes to an assembly. What he did alone was then spread into twenty-nine opera-tions; that cut down the assembly time to thirteen minutes, ten seconds. Then we raised the height of the line eight inches—this was in 1914—and cut the time to seven minutes. Further experimenting with the speed that the work should move at cut the time down to five minutes. In short, the result is this; by the aid of scientific study one man is now able to do somewhat more than four did only a comparatively few years ago. That line established the efficiency of the method and we now use it everywhere.

The assembling of the motor, formerly done by one man, is now divided into eighty-four operations—those men do the work that three times their number formerly did. In a short time we tried out the plan

on the chassis.

About the best we had done in stationary chassis assembling was an average of twelve hours and twen-ty-eight minutes per chassis. We tried the experiassembling was an average of twelve nours and twelf-ty-eight minutes per chassis. We tried the experi-ment of drawing the chassis with a rope and windlass down a line two hundred fifty feet long. Six as-semblers traveled with the chassis and picked up the parts from piles placed along the line. This rough experiment reduced the time to five hours fifty minexperiment reduced the time to five hours fifty minutes per chassis. In the early part of 1914 we elevated the assembly line. We had adopted the policy of "man-high" work; we had one line twenty-six and three-quarter inches and another twenty-four and one-half inches from the floor—to suit squads of different heights. The waist-high arrangement and a further subdivision of work so that each man had fewer movements cut down the labor time per chassis to one hour and thirty-three minutes. Only the sis to one hour and thirty-three minutes. chassis was then assembled in the line.

It must not be imagined, however, that all this worked out as quickly as it sounds. The speed of the moving work had to be carefully tried out; in the fly-wheel magneto we first had a speed of sixty inches per minute. That was too fast. Then we tried eighteen inches per minute. That was too slow. Finally we settled on forty-four inches per minute. The idea is that a man must not be hurried in his work—he must have every second necesary but not a single unnecessary second. We have ried in his work—he must have every second necessary but not a single unnecessary second. We have worked out speeds for each assembly, for the success of the chassis assembly caused us gradually to overhaul our entire method of manufacturing and to put haul our entire method of manufacturing and to put all assembling in mechanically driven lines. The chassis assembling line, for instance goes at a pace of six feet per minute; the front axle assembly goes at one hundred eighty-nine inches per minute. In the chassis assembling are forty-five separate opera-tions or stations. The first men fasten four mud-guard brackets to the chassis frame; the motor arrives on the tenth operation and so on in detail. Some men do only one or two small operations, others do more. The man who places a part does not fasten it— the part may not be fully in place until after several operations later. The man who puts in a bolt does not put on the nut; the man who puts on the nut does not tighten it. On operation number thirty-four the budding motor gets its gasoline; it has previously relubrication; on operation number forty-four the radiator is filled with water, and on operation number forty-five the car drives out onto John R.

Take the development of the piston-rod assembly. Even under the old plan, this operation took only three minutes and did not seem to be one to bother about. There were two benches and twenty-eight men in all; they assembled one hundred and seventymen in all; they assembled one hundred and seventyfive pistons and rods in a nine-hour day—which means
just five seconds over three minutes each. There
was no inspection, and many of the piston and rod
assemblies came back from the motor assembling
line as defective. It is a very simple operation. The
workman pushed the pin out of the piston, oiled
the pin, slipped the rod in place, put the pin through
the rod and piston, tightened one screw, and opened
another screw. That was the whole operation. The
foreman, examining the operation, could not discover
why it should take as much as three minutes. He
analyzed the motions with a stop-watch. He found that four hours out of a nine-hour day were spent in walking. The assembler did not go off anywhere, but he had to shift his feet to gather in his materials and to push away his finished piece. In the whole task, each man performed six operations. The foreman devised a new plan; he split the operation into three divisions, put a slide on the bench and three men on each side of it, and an inspector at the end. Instead of one man performing the whole operation, one man then performed only one-third of the operation—he performed only as much as he could do without shifting his feet. They cut down the squad from twenty-eight men was one hundred seventyive assemblies a day. Now seven men turn out twenty-six hundred assemblies in eight hours. It is not necessary to calculate the savings there!

Dividing and subdividing operations, keeping the

not necessary to calculate the savings there!

Dividing and subdividing operations, keeping the work in motion—those are the keynotes of production. But also it is to be remembered that all the parts are designed so that they can be most easily made. And the saving? Although the comparison is not quite fair, it is startling. If at our present rate of production we employed the same number of men per car that we did when we began in 1903—and those men were only for assembly—we should today require a force of more than two hundred thousand. We have less than fifty thousand men on automobile production at our highest point of around four thousand cars a day!

Time Studies in Industry

The above description is so vivid that it enables the reader to clearly understand the system of experimental time-studies, over which there has been a great deal of contention. This idea of time-studies, made for the purpose of determining the simplest and easiest motions by which a given task can be performed, did not originate in the Ford shops. It is identified with the name of Frederic C. Taylor, an engineer, who developed and introduced it successfully into many shops. To mention this does not derogate from the credit due Mr. Ford, who unquestionably has applied the system with much originality and wonderful success. It was introduced ten years or so ago into shops operated by the United States Government, but was condemned by the labor organizations, who appealed successfully to Congress to have the system suppressed. Each year for many years, the appropriation act carrying the funds for the support of the military establishment of the United States has carried the following paragraph:

That no part of the appropriations made in this Act shall be available for the salary or pay of any officer, manager, superintendent, foreman, or other person having charge of the work of any employee of the United States Government while making or causing to be made with a stop watch, or other time-measuring device, a time study of any job of any such employee between the starting and completion thereof, or of the movements of any such employee while engaged upon such work; nor shall any part of the appropriations made in this Act be available to pay any premiums or bonus or cash reward to any employee in addition to his regular wages, except for suggestions resulting in improvements or economy in the operation of any Government plan.

That paragraph tells the difference between the Ford management of industry and governmental management. Nor does the case of the arsenals stand by itself. It is typical of the government industries. In presenting the bill carrying the appropriation for the support of the Bureau of Engraving and Printing on December 7, 1922, Congressman Madden, of Illinois, Chairman of the Committee, pleading for authority to introduce more power presses in the establishment, in place of old-fashioned hand presses, said in part:

For nearly 40 years the utilization of the most improved type of machinery in the Bureau of Engraving and Printing has been a disputed and contested question. The legislation on the subject for the most part has been a restriction upon the most efficient administration of the plant. As early as 1886 there appeared a limitation on the appropriation to the effect that no part of the sum should be used for the purchase or operation of any new improved plate-printing presses. * * * The sole question in what the committee proposes, stripped of all other considerations, is whether or not the House is willing to place the Bureau of Engraving and Printing upon a basis that will permit it to operate at an annual cost of anywhere from \$800,000 to \$1,000,000 less than it is now costing.

In 1917, after the outbreak of the war, when it was seen that the war work of the Government could not be turned out with part modern and part antiquated equipment, a law was enacted authorizing the Secretary of the Treasury to utilize whatever printing presses or power presses he might desire, so long as he was able to retain in the service the same number of qualified plate printers as were engaged in the work. That is to say, it did not make any difference how much modern machinery you put in, you could not put any man out. This authority was for the period of the war with Germany.

In 1919 this authority was extended during the period of the emergency growing out of the war with Germany, with the same stipulation that in the utilization of power presses and the adoption of any improved style of printing the Secretary of the Treasury must be governed by the restriction that he must still retain the same number of permanent plate printers. So today we are brought face to face with the situation where the bureau is unable to proceed any further with the installation of power presses. The emergency has come to an end, and the Treasury Department will be forced to operate under the provisions of 1912, which is a permanent law. There are in the Bureau of Engraving and Printing at the present time 242 power presses and 246 hand presses. A power press can produce from three to four times more work in a day than a hand presses.

It is gratifying to be able to say that Chairman Madden was sustained in this plucky fight, and that after a contest of forty years, modern printing machinery may be installed in the government plants without restriction. But why not have efficiency methods in the arsenals as well?

Government Management of the Railroads

The tendency of governmental methods to become stereotyped and unprogressive was illustrated by what happened to the railroads when they passed under government control. Piece work was abandoned in the shops and labor was sharply classified, with the result that labor costs were heavily increased. One of the most familiar illustrations of the strict classification of labor is that which relates to the task of changing a nozzle tip on the front end of a locomotive. Formerly one man did

it readily. Under the shop craft rules introduced under government management it became necessary-

To call a boilermaker and his helper to open the door, because that is boilermakers' work;
 To call a pipeman and his helper to remove the blower pipe, because that is pipemen's

work; and

-To call a machinist and his helper to remove the tip, because that is machinists' work.

Of course this is all wrong, but it is only what the labor organizations have done in many other instances, both in government operations and outside, where they have had the power to make rules. It must not be supposed that such rules are adopted in sheer wantonness; they are adopted in the mistaken belief that they are beneficial to the union members, and upon the theory that if all wageearners are organized and follow the same policy the condition of all will be improved. One only has to read Mr. Ford's analysis to see the fallacy of all such reasoning, and its deadening effect upon industrial progress. So long as organized labor countenances such policies, it is preposterous to think of government operation of the railroads.

There is nothing to be gained by mere recrimination between employers and wageworkers; plenty of examples of a want of public spirit can be cited on both sides. Ignorance of mutual interests is mainly responsible. The important truth is that a greater prosperity for business and higher pay than the wage-workers have ever thought of demanding would be possible, if both sides would but give their best efforts to raising the efficiency of industry.

Guaranty of Deposits

When the state legislature of Oklahoma in 1907 passed its famous statute providing that the banks holding Oklahoma charters must mutually guarantee each other's deposits, without restriction or limit, the act was hailed in many quarters as a new idea of great importance-a reform of the first magnitude. It was going to do away with panics and losses to depositors and greatly increase the total of bank deposits, thereby proving a boon to both depositors and bankers. For a time it was predicted that the national banks in the state would be forced into the system or lose their business, and that the guaranty system would sweep the country.

On the 31st day of March, 1923, the Governor affixed his approving signature to an act passed by both houses of the Oklahoma legislature then in session, repealing the guaranty It had been previously modified by amendment, to make it less sweeping in its provisions and therefore less of a menace to the banks that were members of the system, but the burden of liabilities swamped the guaranty fund. The act of repeal does not relieve the member banks of any liabilities already existing to the fund, but the fund is hopelessly bankrupt, and no measure for its relief is proposed. The law is simply dropped as a failure. It did not accomplish what was promised for it; on the contrary, the results were just as predicted by its opponents. It encouraged bad banking by making the prudent bankers stand as sponsors for the reckless ones, increased the losses of the banking business, proved so burdensome to the solvent bankers that many of them left the system, and finally the law was repealed and the experiment abandoned.

The State of Washington in 1917 established a guaranty system which was voluntary, upon the theory that the banks would enter it from choice, for the security offered to depositors. By 1920 116 banks, with deposits of \$65,000,000, had entered it. The failure of the Scandinavian-American Bank of Seattle with \$15,800,000 of deposits broke the

fund, and the system collapsed.

The Legislative Committee of the Minnesota Bankers Association is authority for the statement that since November 15, 1920, the losses chargeable against the bank guaranty fund of North Dakota are estimated at between \$4,000,000 and \$5,000,000. Under the law the maximum amount that can be raised by assessments is \$275,000 annually. Allowing interest on the deposits at 5 per cent, this maximum assessment will just about pay the interest on the liability without reducing it.

The State of Nebraska has a bank guaranty law, and the experience of the solvent banks under it has been a bitter one. The maximum assessment under the law, one and one-tenth per cent upon all deposits, was levied in each of the years, 1920, 1921 and 1922, and one-half of one per cent has been levied already for 1923. The last legislature, however, reduced the maximum assessment in one year to onehalf of one per cent, which makes it easier on the member banks hereafter, but at the expense of the security. It amounts to a partial retraction of the principle upon which the law is founded. The Legislative Committee of the Minnesota Bankers Association, which has been vigorously and successfully opposing a proposal to enact a guaranty law in Minnesota, quotes the Secretary of the Bureau of Trade and Commerce of Nebraska upon the influence of the Nebraska law as follows:

From the standpoint of the incompetent and disbonest banker the guaranty law has been a great success, but from the standpoint of the conservative, experienced and able banker the law is vicious in that it removes the responsibility from the officers, directors and stockholders of the individual banks to a large extent. Depositors apparently are not con-cerned as to where they deposit their money so long as their deposits are guaranteed.

We gave recently an extract from a letter by a correspondent bank located in Texas in which it was stated that it had been obliged to suspend all dividends for several years and devote its earnings to paying the guaranty fund assessments.

The Bond Market

The closing half of the last month evidenced a general improvement in the bond market which carried prices on the average about a point above those which were ruling at the close of April. The Liberty bond market was strong and the outstanding feature of Government issues was the completion of the \$7,500,000,000 task of refunding, which is discussed in detail elsewhere.

The municipal market was quiet during the early part of the month with a limited number of new offerings. The market strengthened, however, toward the close of the month and a wider inquiry developed. The more important issues were:

\$1,424,000 Multnomah County Oregon School 4%s. to yield 4.60%.
1,970,000 Cleveland, Ohio, 4%s, to yield 4.35%.
1,900,000 Oklahoma City School District 5s, to

1,900,000 Oklahoma City School District 5s, to yield 4.65%.
4,000,000 Atlanta, Georgia, 5s, to yield 4.50%.
2,500,000 Kansas City 4½s, to yield 4.25%.
2,465,000 Winston-Salem, N. C. 4½-5½% Bonds, to yield an average of 4.70%.
17,000,000 State of Illinois 4-4½% Bonds, to yield from 4.35% to 4.25%.

The outstanding feature of the railroad market has been the various offerings of equipment issues. Since the first of the year approximately \$180,000,000 equipment issues have been sold by the railroads, and the railroads have authorized expenditures for equipment and other facilities approximating \$1,-100,000,000 for the year 1923. Of this amount \$675,000,000 is for cars and locomotives and \$425,000,000 for trackage and other facilities. The recent equipment issues have been well taken and they are acknowledged as one of the most attractive railroad securities obtainable. During the month the larger equipment issues which were offered included:

\$2,900,000 Central of Georgia 5% Equipments, to yield 5.40%.
7,860,000 Erie Railroad 6% Equipments, to yield 6.00%.

13,500,000 Chicago, Milwaukee & St. Paul 5½% Equipments, to yield 5.75%. 8,550,000 Chicago, Rock Island & Pacific 5% Equipments, to yield 5.40%. 14,003,000 Illinois Central 5% Equipments, to yield

5.20%. 5,700,000 Virginian Railway 5% Equipments, to

yield 5.50%.

Public utility bonds are attracting more and more attention as the earnings of the public service corporations are showing excellent increases from month to month and a wide margin of safety over interest charges. Investors are realizing the attractiveness of these issues for there has been a strong demand during the past month and many of the high grade issues have moved to new levels. Some of the more important issues included:

\$2,000,000 Pennsylvania-Ohio Power & Light Three Year 6s, to yield 6.38%. \$10,000,000 Illinois Power and Light 7% Debentures,

to yield 7%.

6,600,000 The Counties Gas & Electric Company 1st
and Refunding 6% Bonds, to yield

2,500,000 Arkansas Central Power Company 1st & Refunding 6% Bonds, to yield 6.45%.
10,000,000 Empire Gas and Fuel 1st and Refunding

4,000,000 Empre Gas and Tele 1st and Retunding
Three Year 7% Bonds, to yield 7.19%.
4,000,000 Washington Gas, Light Ten Year 6%
Bonds, to yield 6%.
4,000,000 Potomac Electric Power General and Refunding 6% Bonds, to yield 5%%.
2,500,000 Tennessee Electric 1st and Refunding 6%

Bonds, to yield 6.45%.

2,500,000 Pennsylvania Public Service Corporation
6½% Debentures, to yield 6.80%.

Foreign government bonds were in good demand and a favorable sentiment has been expressed throughout the country in relation to the forthcoming Austrian loan which will probably be offered in the near future. Financial details of the offering have not been completed, but it is estimated that the issue will bear the guarantee of practically all govern-ments represented in the League of Nations.

European sentiment is rapidly growing optimistic over the outlook for Austria. It bids fair to furnish a remarkable demonstration of what can be accomplished when domestic politics are suppressed and international financiers are given a free hand.

The average price of forty standard bonds as listed by the Wall Street Journal was 87.71 on May 28th, compared with 86.63 for April 28th and 89.10 for May 28, 1922.

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